

CLAIMS

1. A construction machine comprising: a lower traveling body; an upper rotating body mounted rotatably on said lower traveling body; and an engine room disposed in said upper rotating body and covered with a body cover, with cooling air being introduced from an air-intake opening portion formed in the body cover by operation of a cooling fan disposed within said engine room to cool a heat exchanger accommodated within said body cover and exhaust air after heat exchange being discharged from an exhaust opening portion formed in said body cover,

wherein said air-intake opening portion is an offset opening portion, said offset opening portion being offset disposed in a lateral direction relative to a vent surface of said heat exchanger so as to protrude at least partially from said vent surface when the inside of the body cover is seen through the air-intake opening portion in a direction orthogonal to the surface of the body cover with the air-intake opening portion formed therein.

2. A construction machine according to claim 1, wherein said engine and said heat exchanger are disposed in the transverse direction of the construction machine in the rear portion of said upper rotating body and said air-intake opening portion is offset disposed on the front side of said upper rotating body relative to the vent surface of said heat exchanger.

3. A construction machine according to claim 2, wherein said heat exchanger is disposed in proximity to the body cover which covers a rear end portion of said upper rotating body, and said body cover constitutes a guide surface for guiding cooling air introduced from said air-

intake opening portion to said heat exchanger.

4. A construction machine according to claim 2, wherein a cabin is provided in said upper rotating body at a position ahead of said engine and said heat exchanger, said air-intake opening portion is formed at a position between said cabin and the vent surface of said heat exchanger, and an engine guard is provided between said air-intake opening portion and said cabin, said engine guard constituting a guide surface for guiding cooling air introduced from said air-intake opening portion to said heat exchanger.

5. A construction machine comprising: a lower traveling body; an upper rotating body mounted rotatably on said lower traveling body; and an engine room disposed in said upper rotating body and covered with a body cover, with cooling air being introduced from air-intake opening portions formed in said body cover by operation of a cooling fan disposed within said engine room to cool a heat exchanger accommodated within said body cover and exhaust air after heat exchange being discharged from an exhaust opening portion formed in said body cover,

wherein said air-intake opening portions are provided dispersedly in plural positions and include an offset opening portion, said offset opening portion being offset disposed relative to a vent surface of said heat exchanger so as to protrude at least partially from the vent surface of said heat exchanger when the inside of the body cover is seen through said offset opening portion in a direction orthogonal to the surface of the body cover with the offset opening portion formed therein.

6. A construction machine according to claim 5, wherein said air-intake opening portions are said offset opening portions, said offset opening

portions being offset disposed in mutually different directions relative to the vent surface of said heat exchanger.

7. A construction machine according to claim 6, wherein said offset opening portions include an offset opening portion which is offset disposed vertically relative to the vent surface of said heat exchanger and an offset opening portion which is offset disposed laterally relative to said vent surface.

8. A construction machine according to claim 6, wherein all the air-intake opening portions are said offset opening portions.

9. A construction machine according to claim 5, wherein said air-intake opening portions include a non-offset opening portion other than said offset opening portion or a partial offset opening portion wherein a part of its opening region is offset disposed to such an extent as overlaps with the vent surface of said heat exchanger, and on the inner side of at least a part of the air-intake opening portions out of said non-offset opening portion and said partial offset opening portion there is interposed a shield material for shielding between the air-intake opening portion concerned and the vent surface of said heat exchanger.

10. A construction machine according to claim 9, wherein a sound absorbing material is provided on at least one side of said shield material.

11. A construction machine according to claim 1, wherein said offset opening portion includes one which is offset disposed relative to the vent surface of said heat exchanger to the extent that, when said vent surface is seen through said offset opening portion in a direction orthogonal to the vent surface, the ratio of the vent surface capable of being seen is 50% or

less of the whole opening area of the offset opening portion.

12. A construction machine according to claim 11, wherein all the air-intake opening portions are offset disposed to the extent that, when said vent surface is seen through the offset opening portions in a direction orthogonal to the vent surface, the ratio of the vent surface capable of being seen is 50% or less of the whole opening area of the offset opening portion.

13. A construction machine according to claim 1, further comprising guide means for guiding cooling air introduced from said air-intake opening portion to said heat exchanger.

14. A construction machine according to claim 13, wherein a duct which provides a connection between said vent surface and said air-intake opening portion is provided as said guide means.

15. A construction machine according to claim 14, further comprising a splitter or cell type sound deadening device incorporated within said duct.

16. A construction machine according to claim 14, further comprising an air guide plate within said duct for guiding cooling air introduced from said air-intake opening portion to said heat exchanger side.

17. A construction machine according to claim 16, further comprising a sound absorbing material affixed to said air guide plate.

18. A construction machine according to claim 13, further comprising a sound absorbing material affixed to said guide means.